

a plurality of ferromagnetic core segments ferromagnetically isolated from each other, each of the core segments having respective coils wound thereon to form stator windings;

10                   an outer radial periphery at the air gap; and

                      an inner radial periphery defining an inner volume; and

                      a controller contained within the inner volume for applying energization current to the stator windings.

9. A rotary electric motor as recited in claim 8, wherein duration of the current directed to the stator windings and energization of the switches are controlled in response to signals received by the controller from a rotor position sensor.

16. A rotary electric motor comprising:

                      a rotor having a plurality of permanent magnets disposed in an annular ring configuration, the magnets alternating in magnetic polarity along an inner annular surface;

5                    a stator of annular ring construction encompassed within the rotor and separated therefrom by a radial air gap, the stator comprising a plurality of ferromagnetic core segments having respective coils wound thereon to form stator windings, the stator having an outer radial periphery at the air gap and an inner radial periphery defining an inner volume; and